

Appln. No. 10/594,781
Amdt. Dated March 12, 2008
Reply to Office Action of December 12, 2007

IN THE CLAIMS:

Please amend claim 1, cancel claims 3-5 without prejudice or disclaimer and add new claims 6 and 7 as follows:

1. (Currently Amended) An electronic ballast with life-ended protection comprising: a rectifier and filter circuit, a DC/AC inverter circuit and a resonant circuit, an input of the rectifier and filter circuit being connected to an outside power supply, an output of said rectifier and filter circuit being connected to inputs an input of the DC/AC inverter circuit, an output of the DC/AC inverter circuit being connected to inputs an input of a resonant circuit, and an output of the resonant circuit being connected to a lamp, a feedback driver circuit and a filament current loop connected to the lamp at an input of said feedback driver circuit, an input of the feedback driver circuit being connected to the filament current loop, an output of said feedback driver circuit being connected to a control terminal of the DC/AC inverter circuit, and a filament capacitor circuit having a filament capacitor loop connected to one end of the lamp at its input and to the input of the feedback driver circuit at its output, electrical signals of the filament current loop controlling the DC/AC inverter circuit to drive the resonant circuit through the feedback driver circuit.

2. (Currently Amended) The electronic ballast with life-ended protection according to claim 1, wherein the feedback driver circuit further includes a feedback drive transformer connected to the lamp-filament current loop at a primary winding of said transformer and to the input of the DC/AC inverter circuit at a secondary winding of said transformer.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (New) An electronic ballast with life-ended protection comprising: a rectifier and filter circuit, a DC/AC inverter circuit and a resonant circuit, an input of the rectifier and filter circuit being connected to an outside power supply, an output of said rectifier and filter circuit being connected to an input of the DC/AC inverter circuit, an output of the DC/AC inverter circuit being connected to an input of a resonant circuit, and an output of the resonant circuit being connected to a lamp, a feedback driver circuit and a filament current loop connected to the lamp at an input of said feedback driver circuit, an input of the feedback driver circuit being connected to the filament current loop,

current loop, an output of said feedback driver circuit being connected to a control terminal of the DC/AC inverter circuit, a filament capacitor loop used for a lamp filament capacitor circuit includes a capacitor and a thermal resistor in parallel, an input of the filament capacitor loop is connected to one end of the lamp, an output of said loop is connected to the primary winding of a feedback drive transformer, an output of a primary winding is connected to another end of the lamp, a secondary winding of the feedback drive transformer is connected to provide drive power to bases of two triodes of the DC/AC inverter circuit, respectively, electrical signals of the filament current loop controlling the DC/AC inverter circuit to drive the resonant circuit through the feedback driver circuit.

7. (New) An electronic ballast with life-ended protection comprising: a rectifier and filter circuit, a DC/AC inverter circuit and a resonant circuit, an input of the rectifier and filter circuit being connected to an outside power supply, an output of said rectifier and filter circuit being connected to an input of the DC/AC inverter circuit, an output of the DC/AC inverter circuit being connected to an input of a resonant circuit, and an output of the resonant circuit being connected to a lamp, a feedback driver circuit and a filament current loop connected to the lamp at an input of said feedback driver circuit, an input of the feedback driver circuit being connected to the filament current loop, an output of said feedback driver circuit being connected to a control terminal of the DC/AC inverter circuit, the feedback driver circuit including a feedback drive transformer

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transformer connected to the filament current loop at a primary winding of said transformer and to the input of the DC/AC inverter circuit at a secondary winding of said transformer, a filament capacitor loop used for a lamp filament capacitor circuit includes a capacitor and a thermal resistor in parallel, an input of the filament capacitor loop is connected to one end of the lamp, an output of said loop is connected to the primary winding of the feedback drive transformer, an output of the primary winding is connected to the other end of the lamp, the secondary winding of the feedback drive transformer is connected to provide a drive power to bases of two triodes of the DC/AC inverter circuit, respectively, electrical signals of the filament current loop controlling the DC/AC inverter circuit to drive the resonant circuit through the feedback driver circuit.